

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for synchronizing a wakeup schedule for a first communications module and a wakeup schedule for a second communications module in a wireless mobile unit, said method comprising:

computing a next wakeup time for the first communication module, the computing act is based at least in part on a time period set by the wireless mobile unit;

computing a next wakeup time for the second communication module; and

synchronizing a new wakeup time for the second communication module to the next wakeup time for the first communication module when said next wakeup time for the first communication module is earlier than the next wakeup time for the second communication module.

2. (Previously Presented) A method for synchronizing a wakeup schedule for a Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit, said method comprising:

calculating a next communications wakeup time based at least in part on a time period set by the wireless mobile unit;

calculating a next UWB wakeup time; and

synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than the next UWB wakeup time.

3. (Canceled)

4. (Original) The method of claim 2 further comprising:

determining a current communications time; and

determining a current UWB time.

5. (Original) The method of claim 4 further comprising a step of determining a communications interval, said communications interval equaling said next communications wakeup time less said current communications time.

6. (Original) The method of claim 5 further comprising a step of synchronizing said new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than said next UWB time.

7. (Original) The method of claim 2 further comprising a step of performing a UWB wakeup process and a communications wakeup process substantially at said new UWB wakeup time.

8. (Original) The method of claim 7 wherein said performing step comprises a step of powering on said UWB module and said communications module substantially simultaneously so as to reduce said wireless mobile unit's power consumption.

9. (Previously Presented) A method for synchronizing a wakeup schedule for a UWB module and a wakeup schedule for a communications module in a wireless mobile unit, said method comprising:

determining a current communications time from a received pilot signal transmitted by a base station;

determining a current UWB time from an internal clock in the UWB module;

calculating a communications interval, said communications interval equaling a next communications wakeup time less said current communications time; and

synchronizing a new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than a next UWB time.

10. (Original) The method of claim 9 further comprising steps of:

establishing said next communications wakeup time prior to said step of calculating said communications time interval; and

establishing said next UWB wakeup time prior to said step of synchronizing said new UWB time.

11. (Original) The method of claim 9 further comprising a step of performing a UWB wakeup process and a communications wakeup process substantially at said new UWB wakeup time.

12. (Original) The method of claim 11 wherein said performing step comprises a step of powering on said UWB module and said communications module substantially simultaneously so as to reduce said wireless mobile unit's power consumption.

13. (Original) The method of claim 9 wherein said wireless mobile unit comprises a UWB-enabled communications mobile phone.

14. (Previously Presented) A wireless mobile unit comprising:
a communications module configured to perform a communications wakeup process at a next communications wakeup time, wherein said wakeup time is computed based at least in part on a set time period and the communications module is further configured to receive a pilot signal and derive a current communications time from said pilot signal;
a UWB module configured to perform a UWB wakeup process, wherein the UWB module comprises a clock, said clock being configured to track a current UWB time; and
a processor configured to synchronize a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time.

15. (Canceled)

16. (Previously Presented) The wireless mobile unit of claim 14 wherein said UWB module is configured to perform said UWB wakeup process at said new UWB wakeup time when said next communications wakeup time is earlier than said next UWB wakeup time.

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Previously Presented) The wireless mobile unit of claim 14 wherein said processor is further configured to calculate a communications interval, said communications interval equaling said next communications wakeup time less said current communications time.

21. (Original) The wireless mobile unit of claim 20 wherein said processor is further configured to synchronize said new UWB wakeup time to said next communications wakeup time when said current UWB time plus said communications interval is less than said next UWB time.

22. (Previously Presented) The wireless mobile unit of claim 14 wherein said communications module performs said communications wakeup process and said UWB module performs said UWB wakeup process substantially at said new UWB wakeup time.

23. (Original) The wireless mobile unit of claim 22 wherein said communications module and said UWB module are configured to power on substantially simultaneously so as to reduce said wireless mobile unit's power consumption.

24. (Original) The wireless mobile unit of claim 14 wherein said wireless mobile unit is a UWB-enabled communications mobile phone.

25. (Currently Amended) A wireless unit comprising:

~~a memory~~ means for storing data;

[[a]] means for performing a communications wakeup process at a next communications wakeup time;

means for computing the next communications wakeup time; and

[[a]] means for synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time.

26. (Canceled)

27. (Previously Presented) A digital signals processing apparatus, comprising:
a memory means for storing digital data; and
a digital signal processing means for interpreting digital signals to synchronize a wakeup schedule for a UWB module and a wakeup schedule for a communications module in a wireless mobile unit by:

computing a next communications wakeup time based at least in part on a set time period; and

synchronizing a new UWB wakeup time to said next communications wakeup time when said next communications wakeup time is earlier than a next UWB wakeup time.

28. (Previously Presented) The apparatus of claim 27, said digital signal processing means further interpreting digital signals to establish said next UWB wakeup time after said computing a next communications wakeup time based at least in part on a set time period, and before said synchronizing a new UWB wakeup time.